

वस्त्रादि — हथकरघा निर्मित सूती मिश्रित
साड़ियाँ — विशिष्टि

(दूसरा पुनरीक्षण)

Textiles — Handloom Cotton Mix
Saris — Specification

(Second Revision)

ICS 59.080.30

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भारतीय मानक व्यूरो

BUREAU OF INDIAN STANDARDS

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FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Handloom and Khadi Sectional Committee had been approved by the Textiles Division Council.

This standard was originally published in 1976 and was subsequently revised in 1991. The standard has again been revised to incorporate the following major changes:

- a) Method of test for count of yarn along with its tolerance has been specified;
- b) Tolerances for ends/dm, picks/dm and mass have been modified;
- c) Test method for identification of material has been incorporated;
- d) Sampling plan has been updated;
- e) BIS certification marking clause has been modified; and
- f) References to Indian Standards have been updated.

The composition of the Committee responsible for the formulation of this standard is given in Annex E.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***TEXTILES — HANDLOOM COTTON MIX SARIS —
SPECIFICATION***(Second Revision)***1 SCOPE**

1.1 This standard prescribes constructional particulars and other requirements for five varieties of handloom cotton mix saris.

1.2 This standard does not specify the general appearance, feel, finish, etc.

2 REFERENCES

The standards listed in Annex A contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards.

3 ATMOSPHERIC CONDITIONS FOR TESTING

Test specimens may be conditioned and tested in the prevailing atmosphere for determining the conformity of the cloth to this standard. However, in all cases of disputes, specimens shall be conditioned and tested in the standard atmosphere as specified in the Indian Standards referred on test methods.

4 MANUFACTURE**4.1 Yarn****4.1.1 Warp**

It shall be viscose filament rayon yarn.

4.1.2 Weft

It shall be cotton yarn conforming to the requirements laid down in IS 171.

4.2 The cloth shall be of plain weave.

5 REQUIREMENTS

5.1 The cloth of the saris shall conform to the requirements specified in Table 1.

5.2 The saris shall also conform to the requirements specified in Table 2.

5.3 Dimensions

Length and width of the saris when determined in accordance with IS 1954 shall be as agreed to between the buyer and the seller or as declared by the seller subject to the tolerances specified in the Government of India, Ministry of Commerce and Industry Notification No. S.O. 2937 dated 20 September 1962 issued under *Trade and Merchandise Marks Act, 1958* (43 of 1958) (see Annex B).

5.4 In order to illustrate or specify the indeterminable characteristics, such as general appearance, lustre, feel and Shade of the cloth, a sample has been agreed upon and sealed the supply shall be in conformity with the sample in such respects.

5.4.1 The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

6 INSPECTION

6.1 The saris when visually inspected should be free from the major flaws listed in Annex D.

6.1.1 The number of permissible major flaws per piece shall be as agreed to between the buyer and the seller.

7 SAMPLING**7.1 Lot**

The quantity of saris of the same variety delivered to one buyer against one despatch note shall constitute a lot.

7.2 The conformity of the lot to the various requirements specified in the standard shall be determined on the basis of tests carried out on the samples selected from the lot.

7.3 Unless otherwise agreed, the number of pieces selected at random for inspection shall be in accordance with Table 3.

7.3.1 For selection of samples at random from the lot, procedure given in IS 4905 may be followed.

Table 1 Constructional Particulars and Breaking Load Requirements for Handloom Cotton Mix Saris

(Clause 5.1)

| Sl No. | Variety No. | Count of Yarn (for guidance only) Universal Count (Cotton Count) | | Ends/dm | Pick/dm | Mass g/m ² | Breaking Load | |
|------------------------|-------------|--|---------------|---------|---------|-----------------------|---|------|
| | | Warp | Weft | | | | Warp | Weft |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| i) | 1 | 8.4 tex (70s) | 6 tex (98s) | 320 | 330 | 50 | 170 | 140 |
| ii) | 2 | 11 tex (54s) | 7.4 tex (80s) | 300 | 300 | 60 | 170 | 160 |
| iii) | 3 | 13 tex (45s) | 10 tex (59s) | 270 | 240 | 65 | 200 | 165 |
| iv) | 4 | 8.4 tex (70s) | 7.4 tex (80s) | 280 | 280 | 45 | 150 | 150 |
| v) | 5 | 8.4 tex (70s) | 7.4 tex (80s) | 370 | 330 | 60 | 190 | 160 |
| Tolerance, percent | — | ± 5 | ± 5 | ± 5 | ± 5 | ± 5 | - 5 on average value and - 15 on individual reading | |
| Method of Test, Ref to | — | IS 3442 | | IS 1963 | | IS 1964 or Annex C | IS 1969 (Part 1) | |

Table 2 Other Requirements for Handloom Cotton Mix Saris

(Clause 5.2)

| Sl No. | Characteristic | Requirement | Method of test, Ref to |
|--------|---|--|--|
| (1) | (2) | (3) | (4) |
| i) | Dimensional change percent, <i>Max</i> | 4 | IS 1299 |
| ii) | Scouring loss, percent, <i>Max</i> | 2.5 | IS 1383 |
| iii) | Fibre identification: a) warp b) weft | 100 percent viscose 100 percent cotton | IS 667 |
| iv) | Colour fastness a) Light (for dyed fabrics only): b) Washing Test (1): 1) Change in colour 2) Staining on fabric c) Bleaching d) Perspiration | 5 or better 4 or better 4 or better 4 or better | IS/ISO 105-B01 or IS/ISO 105-B02 IS/ISO 105-C10 IS/ISO 105-N01 IS/ISO 105-E04 |
| v) | pH value | 6.0 to 8.5 | IS 1390 |

Table 3 Sample Size and Permissible Number of Non-Conforming Pieces

(Clause 7.3)

| Sl No. | Lot Size | Sample Size | Permissible Number of Non-conforming Pieces | Sub-sample Size |
|--------|-------------------|-------------|---|-----------------|
| (1) | (2) | (3) | (4) | (5) |
| i) | Up to 90 | 5 | 0 | 3 |
| ii) | 91 to 150 | 8 | 0 | 3 |
| iii) | 151 to 500 | 13 | 1 | 5 |
| iv) | 501 to 1 200 | 20 | 1 | 5 |
| v) | 1 201 to 10 000 | 32 | 2 | 8 |
| vi) | 10 001 to 35 000 | 50 | 3 | 8 |
| vii) | 35 001 to 500 000 | 80 | 5 | 13 |
| viii) | 500 001 and above | 125 | 7 | 13 |

7.4 Number of Samples and Criteria for Conformity

The number of samples to be drawn and the criteria for conformity of the material for various characteristics shall be as follows:

| Sl No. | Characteristics | Number of Samples | Criterion for Conformity |
|--------|--|---------------------------------|---|
| (1) | (2) | (3) | (4) |
| i) | Ends, picks, mass, length, width and visual inspection | According to col (2) of Table 3 | Number of non-conforming pieces shall not exceed the corresponding number given in col (3) of Table 3 |
| ii) | Dimensional change, scouring loss, fibre identification, colour fastness and breaking load | According to col (4) of Table 3 | All the test pieces shall meet the requirement |

8 MARKING

8.1 Each piece shall be suitably marked with the following information:

- Name of the material and variety number;
- Length (m) and width (cm);
- GSM (g/m²);
- Indication of the source of manufacture; and
- Other declarations as per law in force.

8.2 BIS Certification Marking

The product(s) conforming to the requirements of

this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

9 PACKING

Unless otherwise agreed upon by the buyer and the seller the saris shall be preferably packed in bales or cases in conformity with the procedure laid down in IS 1347 or IS 293.

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

| IS No. | Title | IS No. | Title |
|-----------------------------------|--|---|---|
| IS 171 : 1993 | Textiles — Ring spun grey cotton yarn for weaving — Specification (<i>fourth revision</i>) | IS 1969 (Part 1) : 2018/ISO 13934 -1 : 2013 | Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>fourth revision</i>) |
| IS 293 : 1980 | Code of seaworthy packaging of cotton yarn and cloth (<i>third revision</i>) | IS 2006 : 1988 | Method for quantitative chemical analysis of binary mixtures of protein fibre with certain other non-protein fibres (<i>second revision</i>) |
| IS 667 : 1981 | Methods for identification of textile fibres (<i>first revision</i>) | IS 3442 : 2023 | Textiles — Method for determination of crimp and linear density of yarn removed from fabric (<i>second revision</i>) |
| IS 1299 : 1984 | Method for determination of dimensional changes on washing of fabrics woven from rayon and synthetic fibres (<i>second revision</i>) | IS 4905 : 2015/ISO 24153 : 2009 | Random sampling and randomization procedures (<i>first revision</i>) |
| IS 1347 : 1972 | Specification for inland packaging of cotton cloth and yarn (<i>first revision</i>) | IS/ISO 105-B01 : 2014 | Textiles — Tests for colour fastness: Part B01 Colour fastness to light: Daylight |
| IS 1383 : 1977 | Methods for determination of scouring loss in grey and finished cotton textile materials (<i>first revision</i>) | IS/ISO 105-B02 : 2014 | Textiles — Tests for colour fastness: Part B02 Colour fastness to artificial light: Xenon arc fading lamp test |
| IS 1390 : 2022 ISO 3071 : 2020 | Textiles — Determination of pH of aqueous extract (<i>third revision</i>) | IS/ISO 105-C10 : 2006 | Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda |
| IS 1954 : 1990 | Determination of length and width of woven fabrics — Methods (<i>second revision</i>) | IS/ISO 105-N01 : 1993 | Textiles — Tests for colour fastness: Part N01 Colour fastness to bleaching: Hypochlorite |
| IS 1963 : 1981 | Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>) | | |
| IS 1964 : 2001 | Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics (<i>second revision</i>) | | |

ANNEX B

(Clause 5.3)

EXTRACTS FROM THE GOVERNMENT OF INDIA, MINISTRY OF COMMERCE AND INDUSTRY (TRADE AND MERCHANDISE MARKS) NOTIFICATION NO. S.O. 2937 DATED 20 SEPTEMBER 1962

B-1 A trade description of length stamped on grey, bleached, mercerized or coloured cotton piece goods:

- a) In pieces stamped as of length 9 metres and below the stamped length shall not exceed the actual length by more than 1 percent of the piece length or 7.5 cm whichever is less; and
- b) In pieces stamped as of length above the 9 metres the stamped length shall not exceed the actual length by more than 0.6 percent of the piece length or 7.5 cm, whichever is higher.

Provided that the average length of the pieces in question shall not be less than the stamped length.

B-2 A trade description of width of man-made fibre spun and filament yarn piece goods:

- a) In pieces stamped width shall not be greater or less than actual width at any point by more than 3 percent provided that the average width of the pieces in question is

equal to or exceeds 98 percent of the stamped width.

B-3 A trade description of width stamped on grey, bleached, mercerized or coloured cotton piece goods:

- a) In pieces stamped as of width 102 cm or below, the stamped width shall not exceed the actual width at any point by more than 1.3 cm;
- b) In pieces stamped as of width over 102 cm up to 152 cm the stamped width shall not exceed the actual width at any point by more than 1.25 percent of the stamped width of the piece; and
- c) In pieces stamped as of width 152 cm and above the stamped width shall not exceed the actual width at any point by more than 1.25 percent of the stamped width of the piece or 2.5 cm whichever is less.

Provided that average width of the piece in question shall not be less than the stamped width.

ANNEX C

(Table 1)

METHOD FOR DETERMINATION OF MASS OF FABRIC

C-1 Cut four specimens of 100 mm × 100 mm each from a sample. Condition all the specimen a desiccator charged with saturated solution of sodium nitrate at $27^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for a period of 24 hours. Remove all the specimens from the desiccator and

immediately determine their collective mass in a weighing balance to the nearest milligram.

C-2 Calculate the mass of the fabric in g/m^2 .

ANNEX D

(Clause 6.1)

LIST OF MAJOR FLAWS

- a) One or more ends missing in the body of the material throughout its length, more than three ends missing at a place and running over 60 cm, or prominently noticeable double end running throughout the piece;
- b) Undressed Snarls noticeable over a length exceeding 5 percent of the length of the piece;
- c) Smash definitely rupturing the texture of the fabric;
- d) Hole, cut or tear;
- e) Reed marks prominently noticeable over a length exceeding 5 percent of the piece;
- f) Defective or damaged selvedge noticeable over a length exceeding 5 percent of the length of the piece;
- g) Skewing of weft;
- h) Weft crack or two or more missing picks across the width of the fabric;
- j) Warp or weft bar due to the difference in raw material, count, twist, lustre, colour, shade or spacing of adjacent groups of yarns (starting mark);
- k) More than two adjacent ends running parallel, broken or missing and extending beyond 10 cm;
- m) Noticeable warp or weft float in the body of the fabric;
- n) Noticeable oil or other stain in the fabric;
- p) Oily weft in the fabric;
- q) Prominently noticeable slub;
- r) Conspicuous broken pattern;
- s) Gout due to foreign matter, usually lint or waste woven into the fabric;
- t) Prominent selvedge defect;
- u) Significant shading or listing having a gradual change in tone or depth of shade (excluding in selvedge);
- v) Coloured flecks;
- w) Blurred or dark patch;
- y) Patchy, streaky or uneven dyeing;
- z) Dye bar; and
- aa) Fuzzy appearance.

ANNEX E

(Foreword)

COMMITTEE COMPOSITION

Handloom and Khadi Sectional Committee, TXD 08

| <i>Organization</i> | <i>Representative(s)</i> |
|--|---|
| Weavers Service Centre, Delhi | SHRI VISHESH NAUTIYAL (Chairperson) SHRI VIKAS KUMAR (<i>Alternate</i>) |
| Baster Adimjati Sewak Sangh, Baster | SHRI SUMIT DAS SHRI AMIT DAS (<i>Alternate</i>) |
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| Central Reserve Police Force, New Delhi | SHRI D. P. UPADHYAY SHRI SANJEEV KUMAR SINGH (<i>Alternate</i>) |
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| ICAR – Central Institute for Research on Cotton Technology, Mumbai | DR SUJATA SAXENA DR A. S. M. RAJA (<i>Alternate</i>) |
| Indian Institute of Handloom Technology, Varanasi | DR P. THENNARASU |
| Indian Institute of Handloom Technology, Jodhpur | DR J. SIVAGNANAM |
| Indo Tibetan Border Police, New Delhi | SHRI UTTAM KUMAR SHRI ANAND KUMAR (<i>Alternate</i>) |
| Jan Sewa Ashram, Aligarh | SHRI R. K. SHARMA SHRI AKHILESH KUMAR AWASTHI (<i>Alternate</i>) |
| Karnatka Khadi Gramodyog Samyuktha Sangha, Hubli | SHRI K. V. PATTAR SHRI SHIVANANDA S. (<i>Alternate</i>) |
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This Indian Standard has been developed from Doc No.: TXD 08 (20794).

Amendments Issued Since Publication

| Amend No. | Date of Issue | Text Affected |
|-----------|---------------|---------------|
| | | |
| | | |
| | | |
| | | |

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